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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MARCANTONI, PAUL D

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 04/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/807,643

Applicant(s)

Renne et al.

Examiner

Paul Marcantoni

Group Art Unit

1755

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 2/17/03
- ☒ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-4, 6-19, + 36-41 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-4, 6-19, + 36-41 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☒ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other _____

Office Action Summary

Applicant's arguments with respect to pending claims 1-4, 6-19, and 36-41 have been considered but are not convincing.

The applicants' addition of new claims 36-41 necessitated the following new grounds of rejection:

New Matter:

Claims 36-41 are rejected under 35 USC 112 first paragraph and 35 USC 132 as the specification as originally filed does not provide support for the invention as is now claimed.

These claims would appear to be new matter because the limitations such as measuring, preheating, controlling flow rate, etc. would not appear to be within the original disclosure. Applicants may rebut this by providing where in the specification they derive their support for each claim. Should the applicants convincingly do so, the new matter rejection will be promptly withdrawn.

Comment on Prior Art:

The following prior art has been provided because it also teaches the applicants' instant invention. It is important to highlight that these also could have been used in a rejection over ~~applicants~~^{applicants} invention. However, it is the examiner's position that Oates already meets the limitations of the applicants' instantly claimed invention. Applicants may consider commenting on these references as they also teach, that it is old in the art to combust fly ash to remove ammonia residue.

German Patent DE 3526756 teaches that it is old in the art to remove ammonia residues by treating with a hot gas such as simply treating with air heated at 700 to 800 C so that the ammonia is driven off the treating gas. It is evident that the concept of removing ammonia from fly ash is not new in the art (see col.1 of Horch et al. '900). It is also respectfully requested that applicants provide the German document again and an English translation if they have one in their possession for the file history. The German patent document is missing from the file at this time. It was provided by applicants on their PTO-1449. It would appear that this teaching is basic in that it renders obvious the concept of treating fly ash to remove residual ammonia.

Horch et al. (US Patent 4,911,900) teach that it is also old in the art to remove ammonia from fly ash and they teach that stripping of the ammonia from the fly ash can be effected in an apparatus by direct heating with hot gas at 700 to 800 C (col.3, lines 55-57). Yet, Horch et al. even teach that the apparatus for stripping ammonia can also be an indirectly heated rotary kiln or furnace (see col.4, lines 25-30). It would appear that this teaching is basic in that it renders obvious the concept of treating fly ash to remove residual ammonia.

Rejection:

Claims 1-4, 6-19, and 36-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oates et al.'052.

Oates teaches that fly ash is treated in the cooler stage of the rotary kiln such that the fly ash has adequate residence time and at a temperature effective to remove ammonia or decompose the ammonium compound with the liberation of ammonia gas. Although Oates et al. do not teach the range of temperature of at least 1500 F, they make it clear that a temperature effective to remove ammonia or decompose the ammonium compound is necessary and this would read upon the applicants' claimed temperature range because control of temperature to remove ammonia would have been a parameter that is within the control of one of ordinary skill in the art.

Response:

The applicants argue Oates et al. '052 (Oates) that applicants can treat 100% throughput versus Oates which is designed as a process addition to cement at a rate of 1 to 40% of the clinker fly ash mixture. In rebuttal, the applicants' instant claims do not contain any limitation for throughput and it would appear this is a modification that would have been obvious to one of ordinary skill in the art. Oates et al. clearly teach combustion of the fly ash to remove ammonia which would appear to be the focus of applicants' invention.

The applicants also argue that Oates teaches intergrinding of fly ash versus their own invention which does not require it. Yet, applicants are arguing a feature that they themselves do not claim since there is no negative limitation in their own claim stating they do not intergrind. Their own claim at present allows for intergrinding of fly ash.

The applicants next argue the end use of their heat treated fly ash for removal of ammonia. Applicants argue that they use it for ready mixed concrete production as class C or F fly ash whereas Oates process produces a blended hydraulic cement. Again, the applicants claims do not contain these limitations and they cannot properly be read into the claims. If these limitations are in the specification regarding end use, it is improper to read limitations from the specification into the claims. The limitation itself must be in the claim itself. While it is true that the claims may be read in light of the specification, it is improper to read the limitations of the specification into the claims. In re Yamato, 222 USPQ 93; In re Wilson, 149 USPQ 523; Graver Tank v. Linde Air Products Co. 80 USPQ 451 (Supreme Court). Also, no matter what the fly ash is ultimately used for (blended cement or ready mix concrete), Oates et al. clearly teaches it is old in the art to combust the fly ash to remove ammonia. This is not a new concept.

The applicants next argue that they have a limitation in claim 1 that heat is recovered from the flowing air after the fly ash has been exposed to flowing air. The applicants argue that Oates only teaches the recovery of fine particles from the air exiting the Oates apparatus. The applicants would appear to have reinforced the examiner's own position since they admit that the "air" is returned to the cooler through port 50. In other words air and fine particles of fly ash as well as cement clinker may be returned through port 50. Since the air is most certainly hot at this stage, it would meet the limitations of claim 1 since heated or hot air that is recovered is recovered heat which is recycled back into the

process. This is not a new concept in rotary kiln and is notoriously known in the art for energy and economic considerations when it comes to heat recovery and recycling as well as materials recovery and recycling.

The applicants next argue that the process temperatures of the fly ash are measured and used to time the removal of fly ash from the process and introduction of a second amount of fly ash into the process. Are applicants of the position that the prior art does not also monitor temperatures and determine an adequate residence removal time? This is routine operation to one of ordinary skill in the art. Again, applicants are referred to column 5 wherein it teaches the fly ash has an adequate residence time at a temperature effective to remove the ammonia or decompose the ammonium compound with the liberation of ammonia gas. It is evident that one of ordinary skill in the art would be measuring residence times as well as monitoring temperature for optimum performance of the rotary kiln which is done routinely in the art.

The applicants next argue that in their new claim 37 they teach the limitation that they preheat the fly ash before the introduction to the clinker. By doing so, they increase the rate at which the fly ash can reach the desirable temperature of at least 900 F to allegedly remove ammonia. In rebuttal, applicants already admit and acknowledge that fine particles of fly ash are recovered that are exiting the Oates apparatus. Again, if the fly ash particles are recycled (or recovered) and reintroduced through port 50 where un-heated or un-preheated fly ash is already introduced, they would already also be "preheated"

because they've already been exposed to the heat prior to reintroduction into the cooler so this meets applicants' claim limitation for preheating.

The applicants finally argue that Oates does not teach control of cooling air from air jets 46 which, by controlling air flow, can increase the speed at which fly ash can reach temperatures of 900 F. The applicants are referred to col.5, line 61: "feed jets of cooling air upwardly through cooler grate" as well as col. 6, lines 34-35 wherein it states that the clinker is progressively cooled by the air from jets 46 as it advances towards exit port 44. It is the examiner's position that making cement is a continuous process that requires control of many parameters including cooling air and that this is merely routine optimization of a process within the teaching of Oates. One of ordinary skill in the art would have understood that the cooling jets or air would directly impact temperature and that the optimum temperature must be utilized to attain a temperature to remove ammonia from fly ash.

For the above cited reasons, applicants' arguments are not convincing.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is (703)-308-1196. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on (703) 308-3823. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-872-9310 for regular communications and (703)-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.



Paul Marcantoni
Primary Examiner
Art Unit 1755